

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the present application.

1. (previously amended) A combinatorial library which exists at equilibrium in an aqueous solution or suspension including one or more metal atoms or metal ions and a group of three or more non-biopolymer ligands each of which comprises (i) at least one functional group capable of bonding to the metal atom or metal ion and (ii) a recognition element capable of binding a biological receptor, the combinatorial library comprising:

a plurality of at least six different complexes in the aqueous solution or suspension, each of the plurality of at least six different complexes being formed of a metal atom or metal ion and at least two non-biopolymer ligands, wherein each of the at least two non-biopolymer ligands is reversibly bonded through the at least one functional group thereof to the metal atom or metal ion by a labile coordinate bond and wherein each different complex in said library has different ligands bonded to the metal atom or metal ion.

2. (previously amended) A combinatorial library according to claim 1, wherein each of said plurality of complexes has the formula $Z(A^i)_n$, wherein Z is the metal atom or metal ion, each A^i is a non-biopolymer ligand independently selected from a group of non-biopolymer ligands comprising at least three different members, n is the number of non-biopolymer ligands reversibly bonded to the metal atom or metal ion and is an integer equal to two or greater, and i is an index number for each non-biopolymer ligand and is an integer from 1 to n.

3. (previously amended) A combinatorial library according to claim 2, wherein each of said plurality of complexes has the formula $Z(A^1)(A^2)(A^i)_{n-2}$, wherein A^1 and A^2 are non-biopolymer ligands capable of reversibly binding to the metal atom or metal ion and are independently selected from a group of non-biopolymer ligands having at least three different members and i is an index number for each A and is an integer from 3 to n.

4. (original) A combinatorial library according to claim 3, wherein said combinatorial library comprises complexes having the formulae $Z(B1)(B1)(A^i)_{n-2}$, $Z(B1)(B2)(A^i)_{n-2}$, $Z(B1)(B3)(A^i)_{n-2}$, $Z(B2)(B2)(A^i)_{n-2}$, $Z(B2)(B3)(A^i)_{n-2}$, and $Z(B3)(B3)(A^i)_{n-2}$; B1, B2, and B3 are different non-biopolymer ligands and are members of the group from which each A^i is selected; and i is an index number for each A and is an integer from 3 to n.

5. (previously amended) A combinatorial library according to claim 2, wherein each of said plurality of complexes has the formula $Z(A^1)(A^i)_{n-1}$, wherein A^1 is a non-biopolymer ligand capable of reversibly binding to the metal atom or metal ion and is independently selected from a group of non-biopolymer ligands having at least three different members; i is an index number for each A and is an integer from 3 to n ; and Z , A^1 , and each A^i are selected so that the reactions $Z(A^i)_{n-1} + A^1 \rightarrow Z(A^1)(A^i)_{n-1}$ and $Z(A^1)(A^i)_{n-1} \rightarrow Z(A^i)_{n-1} + A^1$ each have a rate constant of greater than about 2 per second.

6. (previously amended) A combinatorial library according to claim 2, wherein at least one of A^i is a non-biopolymer ligand comprising a recognition element selected from the group consisting of a DNA intercalator, a major or minor groove DNA binder, hydroxy groups, pyrrolid-2-yl groups, N-alkylpyrrolid-2-yl groups, alkoxy groups, tetrahydrofuran-2-yl groups, pyrid-2-yl groups, and substituted or unsubstituted phenyl groups.

7. (previously amended) A combinatorial library according to claim 2, wherein the metal atom or metal ion is a transition metal atom or transition metal ion.

8-9 (canceled)

10. (original) A combinatorial library according to claim 1, wherein said combinatorial library comprises a plurality of at least 100 different complexes.

11-41 (canceled)

42. (new) A combinatorial library according to claim 1, wherein the aqueous solution or suspension, in which the combinatorial library exists, is non-denaturing to a biological receptor.